

Serial No. 10/023,501

Atty. Docket No. LeA 35 012

Claims (Attorney Docket No. LeA 35 012)

1. (Currently amended) An automatable method for identifying cancer cells and their precursors, characterized in that at least two molecular markers in a cell or a tissue sample are detected simultaneously ~~and the signal intensities are combined and accredited~~ comprising the steps of contacting the cell sample or tissue sample with color marked reagents that specifically bind to the molecular markers, simultaneously detecting signal intensities of color mixtures resulting from the markers, and combining and accrediting the signal intensities.
2. (Currently amended) The method according to claim 1, further characterized in that the automatic information processing is linked to a diagnostic expert system which consolidates the image information into a proposed diagnosis.
3. (Currently amended) The method according to claim 1, wherein the molecular markers are detected quantitatively by ~~analysing~~ analyzing the signal intensities of chromogenic colour color reactions or fluorescence signals in constituent regions of the cell or tissue sample, with ~~secondary colours~~ color mixtures or the spatial proximity of the individual ~~colours~~ colors ~~when using at least two markers~~ providing additional information as compared with single stainings.
4. (Previously amended) The method according to claim 1, wherein marker combinations are selected from the group consisting of:  
her2/neu and Ki67, her2/neu and p53, her2/neu and bcl-2, her2/neu and MN, her2/neu and mdm-2, her2/neu and EGF receptor, bcl-2 and Ki67, bcl-2 and MN, bcl-2 and mdm-2, bcl-2 and EGF receptor, her2/neu and bcl-2, p53 and bcl-2, p53 and MN, p53 and mdm-2, p53 and EGF receptor, p16 and p53, p16 and MN, p16 and mdm-2, p16 and EGF receptor, p16 and Ki67, p16 and her2/neu, p16 and bcl-2, MN and mdm-2, MN and EGF receptor, mdm-2 and EGF receptor.
5. (Currently amended) The method according to claim 1, characterized in that ~~tumours~~ tumors of the mammary gland, the lung, the cervix, the colon, the skin and the prostate are detected.
6. (Currently amended) The method according to claim 1, characterized in that it the method involves reflex testing.

Serial No. 10/023,501

Atty. Docket No. LeA 35 012

7. (Currently amended) A test kit for implementing the method according to claim 1 ~~containing all the necessary reagents~~ comprising reagents for detecting molecular makers, auxiliary agents, reagents for staining cells, controls, and protocols.